

To: Natalie Davis[natalie_davis@ios.doi.gov]
From: Ceat Ext Homework, Ceat
Sent: 2017-07-05T09:26:27-04:00
Importance: Normal
Subject: RE: (b)(6)
Received: 2017-07-05T09:53:10-04:00

Ms. Davis,

In the future, please try to attach the exam as an email attachment, instead of in the body of the email because this makes it very difficult to print. PDF, Word, or JPG are the best options.

Thank you and have a great day!

CEAT Engineering Distance Education

<http://ceatde.okstate.edu>

101 Engineering North
Oklahoma State University
Stillwater, OK 74075
Phone: 405-744-5147
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From: Natalie Davis [mailto:natalie_davis@ios.doi.gov]
Sent: Friday, June 30, 2017 10:07 PM
To: Ceat Ext Homework, Ceat
Subject: Barton, Max

See attached test and with times.

Thanks!
Natalie

Sent from my iPhone
Begin forwarded message:

From: Natalie D <natalie_davis@ios.doi.gov>
To: Natalie D <natalie_davis@ios.doi.gov>
Subject: Message from "RNP002673AF75FE"

This E-mail was sent from "RNP002673AF75FE" (MP C5503).

Scan Date: 06.30.2017 17:07:20 (-0400)



PROCTORS: Please either email or fax the completed original copy for your records, the instructor file until a month after the semester ends.)

STUDENT

Exam Type: ☐ Student Disability

Student Name(s): See email

Course Name: Engr Economic Anal & Econ Decision An

Course Prefix/Number: IEM 3503/3513

Test/Exam Title: Test 3

Statement of Academic Honesty

The following form is standard procedure for an exam that may be offered multiple times. Read the material below, then complete the form and return it with your completed exam. Your exam will not be graded unless a completed copy of this form is on file.

Course: IEM 3503/3513 Summer 2017

Test: Weekly Test # 3

There are others who may be taking this exam or a similar exam at a later date. You are in no way to have any form of direct or indirect communications regarding this exam with anyone. If someone asks something as simple as "How was it?" your best response is "I cannot talk about the exam." Any violation of the letter or spirit of the above will be treated as an act of academic dishonesty.

By completing the information below, I acknowledge that I have read and understood the Statement of Academic Honesty above.

Name (signature) _____

(b)(6)

Name (print): _____

(b)(6)

Student ID: _____

(b)(6)

Today's Date: _____

6/30/17

3 of 5

NAME: maximilien Barton

DR. COLLINS

TEST #3C (ON-LINE SECTION ONLY)

TIME LIMIT: 75 MINUTES

TEST TIME WINDOW: WEDNESDAY, JUNE 28, 2017 (8:00AM) TO FRIDAY
JUNE 30, 2017 (5:00PM)

(OPEN BOOK, ONE PAGE OF NOTES – 8 ½ X 11)

Attach Notes Page to back of Test when submitted for gradeABSOLUTELY NO CELL PHONES OR BACKPACKS IN TESTING AREA!!!

Multiple Choice Questions: For each Multiple Choice question below select the most nearest answer from choices A – D. Properly write your selected answer in the blank beside the corresponding question. Each M/C question is worth 10 points each.

- (10) A 1. A \$10,000 face value bond pays dividends of \$1,200 (12%/yr bond rate) at the end of each year. If the bond matures at 20 years, what is the approximate bond value at an interest rate of 11% per year, compounded annually?
- A. \$ 8,245
B. \$ 9,300
C. \$10,800
D. \$12,820
- $$P = 1200(P|A, 11\%, 20) + F(P|F, 11\%, 20)$$

$$(7.96333) \quad (0.12403)$$
- $$\bar{V} = 10,000$$

$$r = 12\%$$

$$A = 1200$$

$$n = 20$$

- (10) D 2. Douglas wishes to purchase a \$1,000 bond from Jose who needs the money. There are 7 years remaining until the bond matures, and interest payments are made quarterly. Douglas decides to offer Jose \$850 for the bond because he wants to earn exactly 8% per year compounded quarterly on the investment. What is the “effective” annual bond rate of interest?
- A. 9.10%
B. 5.28%
- $$P = \bar{V}r(P|A, i\%, n) + F(P|F, i\%, n)$$

$$i_{\text{eff}} = \left(1 + \frac{0.06}{4}\right)^4 - 1 = \underline{\underline{0.015015}}$$

$$P = 95000$$

$$r = 12\% \quad 3$$

$$n = 10$$

$$P = 95000$$

$$r = 3\%$$

$$N = 10$$

$$i = ?$$

$$\text{eff}$$

$$F = 92000$$

$$V = 100000$$

$$r = .12$$

$$n = 10$$

- (10) B 3. One hundred \$1,000 bonds having a bond rate of 12% per year payable quarterly are purchased for \$95,000, kept for 10 years, and sold for \$92,000. Determine the "effective" annual yield rate on the bond investment.

- A. 13.74%
B. 14.35%
C. 16.90%
D. 18.25%

$$92000 = 30000$$

$$95000 = 12000 (.03) (PIA, i, 10) + 92000$$

- (10) C 4. A \$200,000 bond having a bond rate of 10% payable annually is purchased for \$190,500 and kept for 5 years, at which time it is sold. How much should it sell for in order to yield a 8% effective annual return on the investment?

- A. \$177,425
B. \$174,750
C. \$171,250
D. \$162,575

$$P = 200,000$$

$$r = 10\%$$

- (10) B 5. Upon graduation you decide to purchase a new car for \$32,000 at a 6% per year compounded monthly rate for 5 years. You plan on paying the loan back with 60 equal monthly payments. How much are the monthly payments?

- A. \$434
B. \$620
C. \$1,005
D. \$1,790

- (10) C 6. Using the information from Question #5, what is the remaining balance after the 30th payment?

- A. \$17,200
B. \$22,900
C. \$28,600
D. \$31,680

(10) A 7. Using the information from Question #5, what is the Payoff prior to making your 32nd payment.

- A. \$30,800
- B. \$22,900
- C. \$16,740
- D. \$ 6,140

(10) D 8. Using the information from Question #5, what portion of the 18th payment is principal?

- A. \$715
- B. \$618
- C. \$499
- D. \$120

(10) A 9. Diamond Crystal in Weatherford, Oklahoma is looking at a new bag filtration system to remove airborne pepper particles inside the production facility. The information below is for a filtration system from the U.S. Clean Air of America Corporation. MARR is 8%. Based on the information below what is the Present Worth of the proposed bag filtration system?

First Cost = \$50,000
 M&O Costs = \$ 2,000
 Annual Benefit = \$11,000
 Salvage Value = \$12,000
 Useful Life = 8 years

- A. -\$4,300
- B. \$ 0
- C. \$4,300
- D. \$8,200

